

**REMARKS****1. Claims Amendment**

The independent claims, Claims 1, 18 and 35 have been amended for clarity to indicate that the present device is for use in visually monitoring and determining the temperature of cooking food, which is not disclosed or taught in the cited art, and has a body with an orifice. Claims 18 and 35 have further been amended for clarity to indicate that the temperature indicator moves from a first or retracted position indicating the food is in an uncooked state and a second or extended position indicating the food is in a cooked state, which also is not disclosed in the cited art. Support for these amendments can be found throughout the Specification, especially in the detailed description of the preferred embodiments. No new matter has been added in these amendments.

Claims 2-17, 19-34, and 36-43 have not been amended in this Response.

**2. Claims 1, 2, and 18 Are Not Anticipated Under 35 USC 102 By Either US Patent No. 5779364 To Cannelongo Or US Patent No. 5144880 to Schmidt**

Claims 1 and 2 have been rejected under 35 USC 102 as being anticipated by US Patent No. 5779364 to Cannelongo (Cannelongo '364) and Claim 1 and 18 have been rejected under 35 USC 102 as being anticipated by US Patent No. 5144880 to Schmidt (Schmidt '880). Applicants respectfully traverse these rejections.

Anticipation under 35 USC 102(b) requires "the disclosure in a prior art reference each and every element of the claimed invention." *Orthokinetics, Inc. v. Safety Travel Chairs, Inc.*, 1 USPQ2d 1081 (Fed. Cir. 1986); *see also verdegall Bros. V. Union Oil Co. of California*, 814 F2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987) ("a claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference"). The absence of one element from the cited prior reference negates anticipation. *See Atlas Powder Co. v. E.I. du Pont de Nemours & Co.*, 224 USPQ2d 409 (Fed Cir. 1984).

The Federal Circuit has applied anticipation narrowly. For example, the Federal Circuit affirmed a district court determination that patents related to a ceramic welding process for repairing industrial furnaces were not invalid for

anticipation, notwithstanding that the claims of the patents overlapped with or read on either or both of two prior art patents, because the district court properly determined that the prior art patents were related to flame-spraying and to combustion at the furnace wall. *See Glaverbel Societe Anonyme And Fosbel, Inc. v. Northlake Marketing & Supply, Inc.*, 33 USPQ2d 1496 (Fed Cir. 1995). Even though both inventions had a general relation to combustion, they were not so related that one of ordinary skill in the ceramic welding art would look to the flame-spraying art or the furnace wall combustion art.

**A. Claims 1 and 2 Are Not Anticipated Under 35 USC 102 By US Patent No. 5779364 To Cannelongo**

Cannelongo '364 discloses a temperature indicator that uses polymers to cover a warning. When the polymer reaches a certain temperature, it melts, thus displaying the warning. This is an inappropriate anticipation rejection because the Cannelongo '364 device does not release an indicating means that moves from a first position to a second position. All Cannelongo '364 discloses is a melting wax that melts away from an immovable warning - Cannelongo '364 does not disclose an indicating means capable of moving from a first position to a second position - the Cannelongo '364 warning label is the indicating means but is incapable of movement. The Cannelongo '364 low-temperature melt metals or polymers cannot and do not fit the definition of an indicating means as they do not indicate anything.

Further, the Cannelongo '364 device is not for visually determining and monitoring temperature and is in a different technological field (a different "art"). Cannelongo '364 does not allow one to visually determine and monitor temperature, but merely allows one to know when a certain low temperature has been reached. The Cannelongo '364 device is more of a safety feature.

Additionally, Cannelongo '362 does not disclose or claim the use of device for the cooking of food, or a device in which a temperature indicator moves from a first position to a second position to indicate that the food has been cooked from an uncooked state to a cooked state, as now claimed in Claim 1.

As can be seen, as Cannelongo '364 does not disclose every element of Applicant's invention as disclosed, Cannelongo '364 does not anticipate the claims of the present invention. Applicant respectfully requests that the Examiner reconsider and withdraw this ground for rejection.

**B. Claims 1 and 18 Are Not Anticipated Under 35 USC 102 By US Patent No. 5144880 to Schmidt**

Schmidt '880 discloses a food decorating device in which a heat expandable material, when heated, forces a decorative display out of a barrel previously inserted into a food item. The Schmidt '880 device uses an expandable medium to force the display out of the barrel, and does not use a medium to release an indicator. In Schmidt '880 a covering holds a spring-loaded device within a barrel, wherein in the present invention, a thermopolymer retains the indicator within a barrel without the need for a stopping cover. Therefore, Claims 1 and 18 of the present invention comprise fewer components than Schmidt '880 and cannot be anticipated by Schmidt '880. Additionally, the Schmidt '880 device also is not for visually determining and monitoring temperature and also is in a different art.

Schmidt '880 in addition does not use a release as an indicator. The present invention as claims an indicator embedded in a thermopolymeric material that is intended as a release indicator. In the present invention, one can selectively formulate the thermopolymeric material for specific temperatures of interest for internal temperature monitoring. The present invention teaches how to use polymeric mediums for a broad range of different applications that depends specifically on formulating the composition to be pre-set at a particular temperature for a particular application.

Additionally, Schmidt '880 does not disclose or claim the use of device for the cooking of food, or a device in which a temperature indicator moves from a first position to a second position to indicate that the food has been cooked from an uncooked state to a cooked state, as now claimed in Claims 1 and 18.

As can be seen, as Schmidt '880 does not disclose every element of Applicant's invention as disclosed, Schmidt '880 does not anticipate the claims of the present invention. Applicant respectfully requests that the Examiner reconsider and withdraw this ground for rejection.

**3. Claims 2-17 and 19-43 Are Not Obvious Under 35 USC 103 Over The Cited Art.**

For a claim to be determined obvious (or nonobvious) under 35 USC 103, the claimed material must have been obvious to person of ordinary skill in the art from

the prior art. An obviousness determination requires examining (1) the scope of the **prior art**, (2) the **level of skill** in the art, and (3) the **differences** between the prior art and Applicant's invention. *Litton Systems, Inc. v. Honeywell, Inc.*, 117 SCt 1270 (1970). A mere suggestion to further experiment with disclosed principles would not render obvious an invention based on those principles. *Uniroyal, Inc. v. Rudkin-Wiley Corp.*, 19 USPQ2d 1432 (Fed. Cir. 1991). In fact, an applicant may use a reference as his basis for further experimentation and to create his invention. *Id.* To sustain a rejection under 35 USC 103, the examiner must establish a *prima facie* case of obviousness. MPEP §2142. To establish a *prima facie* case of obviousness, the prior art reference (or references when combined) must teach or suggest all the claim limitations. MPEP §2143.

**The fact that each element in a claimed invention is old or unpatentable does not determine the nonobviousness of the claimed invention as a whole.** See *Custom Accessories, Inc., v. Jeffrey-Allan Industries*, 1 USPQ2d 1196 1986 (Fed. Cir. 1986). The prior art must not be given an overly broad reading, but should be read in the context of the patent specifications and **as intended by reference authors**. *Durling v. Spectrum Furniture Co.*, 40 USPQ2d 1788 (Fed Cir 1996) (Federal Circuit held that district court erred by giving a "too broad an interpretation" of claims in a sofa patent to invalidate another on the nonobviousness standard).

The Federal Circuit has defined and determined the bounds of the prior art to be identical for both nonobviousness and anticipation purposes. See *In re Lowry*, 32 USPQ2d 1031 (Fed. Cir. 1994). Prior art for these purposes is pertinent art recognized by persons of ordinary skill to be in the **field of the invention**. See *In re Spada* 15 USPQ2d 1655, 1657 (Fed.Cir.1990), *In re Horne*, 203 USPQ 969, 971 (CCPA 1979). Prior art is pertinent if persons of ordinary skill in the art would have consulted art in that field to develop the invention given the nature of the problem. See *In re Paulsen*, 31 USPQ2d 1671 (Fed. Cir. 1994). Specifically, the pertinence of any reference is dependent upon whether it would suggest to persons skilled in the art to do the thing that the applicant has done, and the same is true in considering more than one reference or a reference alleged not to be in the particular art. See *In re Phipps*, 69 USPQ 88 (CCPA 1946). Nonanalogous prior art cannot properly be considered prior art under 35 USC 103. *In re Pagliaro*, 210 USPQ 888, 892 (CCPA 1981).

The Federal Circuit has made it clear that the nonobviousness standard is applied wrongly if a court or an examiner (1) **improperly focuses on “a combination of old elements” rather than the invention as a whole**, (2) **ignores objective evidence of nonobviousness**, (3) pays lip service to the presumption of validity, and (4) fails to make sufficient *Graham* findings. *Custom Accessories, Inc.*, 1 USPQ2d 1196 (Fed. Cir. 1986). Applying the nonobviousness test counter to these principles counters the principle that a patent application is presumed nonobvious. *Id.*

To protect applicants from rejections based on references from different fields and to maintain the presumption of patentability, the Federal Circuit has held that rejections based on combinations of references are valid when there is some **“teaching, suggestion, or motivation to combine the references.”** *In re Rouffet*, 149 F3d 1350, 1355, 47 USPQ2d 1453, 1456 (Fed.Cir.1998). The combination of references must be obvious at the time the applicant's invention was developed and **hindsight may not be used to deem an invention unpatentable based on obviousness** because the nonobviousness standard does not allow such a combination based on Applicant's blueprint, i.e. applicant's patent application. See *In re Fine*, 837 F2d 1071, 1075, 5 USPQ2d 1596 (Fed.Cir.1988).

The Federal Circuit has made it clear that the nonobviousness standard is applied wrongly if a court or an examiner: (1) improperly focuses on “a combination of old elements” rather than the invention as a whole; (2) ignores objective evidence of nonobviousness; (3) pays lip service to the presumption of validity; and (4) fails to make sufficient *Graham* findings. *Custom Accessories, Inc.*, 1 USPQ2d 1196 (Fed. Cir. 1986). Applying the nonobviousness test counter to these principles counters the principle that a patent application is presumed nonobvious. *Id.*

Initially, the additional art cited by the examiner in the 35 USC 103 rejections disclose and claim various types of hot melt adhesives. Hot melt adhesives generally do not have sharp melting transitions compared with well defined melting transitions like those described in the present application. In addition, the materials disclosed and claimed in the present application are intended to be in contact with or in proximity with foods and the polymeric compositions should be acceptable for direct and indirect food contact. Hot melt adhesives are not intended to be safe in regard to food compositions.

Additionally, the cited patents, neither alone nor in combination, teach that or how detection of a selected temperature can be monitored utilizing a mechanical release mechanism. The combination of the cited patents in fact teach that a secure composition can be made that is intended to *not* release under cooking conditions. Hot melt compositions melt generally at much higher temperatures than the internal temperature of cooking food. Hot melt compositions are specifically intended to be stable and adherent at cooking temperatures, otherwise they would be faulty for food packaging and the like. The present application discloses and claims a combination of polymeric mediums, thermal mechanical release, and temperature detection in a non-obvious way.

Further, the thermopolymeric compositions as claimed in the present invention do not have the same composition as hot melt compositions. The thermopolymeric compositions of the present invention have a low viscosity at elevated temperature making them suitable for mass production using liquid handling techniques. Hot melt compositions are much higher viscosities and are not suitable for facile liquid handling during production. As the thermopolymeric compositions are positively recited in the claims, and have different compositions and characteristics than the hot melt compositions in the cited art, the claims directed to the specific thermopolymeric compositions are not obvious in view of the cited art.

Finally, the amendments to Claims 1, 18 and 35 moot the obviousness rejections of Claims 2-17, 19-34, and 36-43. As Applicants assert that independent Claims 1, 18 and 35 are allowable, dependent Claims 2-17, 19-34, and 36-43, all of which depend directly or ultimately from independent Claims 1, 18 and 35, also are allowable.

**A. Claims 2, 14-17, 19, and 31-34 Are Not Obvious Under 35 USC 103 Over Schmidt '880 In View Of US Patent No. 5109054 To Smith.**

Claims 2, 14-17, 19, and 31-34 have been rejected under 35 USC 103 as being obvious over Schmidt '880 in view of US Patent No. 5109054 to Smith (Smith '054). Smith '054 discloses a polymerized fatty acid useful for adhesive applications. Smith '054 is even relevant, being an adhesive and not a releasing medium. However, the present invention also discloses and claims multiple elements that are different from those disclosed in the cited art. Schmidt '880 and Smith '054 do not

disclose each of the required elements (a medium that is polymeric, a release mechanism, and an indication means).

In addition to the above distinction between hot melt adhesives and the thermopolymeric materials disclosed and claimed in the present application, the combination of Schmidt '880 and Smith '054 does not disclose, claim or teach in any way the use of device for the cooking of food, or a device in which a temperature indicator moves from a first position to a second position to indicate that the food has been cooked from an uncooked state to a cooked state, as now claimed in the present application.

As the present invention is not fairly taught by or related to the subject matter of the cited references, the cited references cannot and do not make obvious the present invention as claimed, and Applicant requests that this ground for rejection be withdrawn. For the reasons stated above, Applicant requests that the examiner withdraw the rejections of Claims 2, 14-17, 19, and 31-34.

**B. Claims 2-13, 19-30 And 35-37 Are Not Obvious Under 35 USC 103 Over Schmidt '880 In View Of US Patent No. 6239250 To Hefner.**

Claims 2-13, 19-30 and 35-37 have been rejected under 35 USC 103 as being obvious over Schmidt '880 in view of US Patent No. 6239250 to Hefner (Hefner '250). Hefner '250 discloses a hot melt adhesive employing organic polymeric materials adjustable for melting. Hefner '250 is a typical hot melt adhesive that melts at a certain temperature so that it can be applied to adhere substrates together. As above, Hefner '250 is even relevant, being an adhesive and not a releasing medium. We also do not believe that the Schmidt '880 / Hefner '250 combination is valid because we do not believe that one skilled in the art would substitute an adhesive for a heat expandable material.

In addition to the above distinction between hot melt adhesives and the thermopolymeric materials disclosed and claimed in the present application, the combination of Schmidt '880 and Hefner '250 does not disclose, claim or teach in any way the use of device for the cooking of food, or a device in which a temperature indicator moves from a first position to a second position to indicate that the food has been cooked from an uncooked state to a cooked state, as now claimed in the present application.

As the present invention is not fairly taught by or related to the subject matter

of the cited references, the cited references cannot and do not make obvious the present invention as claimed, and Applicant requests that this ground for rejection be withdrawn. For the reasons stated above, Applicant requests that the examiner withdraw the rejections of Claims 2-13, 19-30 and 35-37.

**C. Claims 14-17, 31-34 and 38-43 Are Not Obvious Under 35 USC 103 Over Schmidt '880 and Hefner 250 In View Of US Patent No. 4871811 To Gaku.**

Claims 14-17, 31-34 and 38-43 have been rejected under 35 USC 103 as being obvious over Schmidt '880 and Hefner '250 in view of US Patent No. 487181 to Gaku (Gaku '181). Gaku '181 discloses a hot melt adhesive composition employing thermopolymeric plastics in combination with other adhesives. As above, Gaku '881 is even relevant, being an adhesive and not a releasing medium.

In addition to the above distinction between hot melt adhesives and the thermopolymeric materials disclosed and claimed in the present application, the combination of Schmidt '880, Hefner '250 and Gaku '181 does not disclose, claim or teach in any way the use of device for the cooking of food, or a device in which a temperature indicator moves from a first position to a second position to indicate that the food has been cooked from an uncooked state to a cooked state, as now claimed in the present application.

As the present invention is not fairly taught by or related to the subject matter of the cited references, the cited references cannot and do not make obvious the present invention as claimed, and Applicant requests that this ground for rejection be withdrawn. For the reasons stated above, Applicant requests that the examiner withdraw the rejections of Claims 14-17, 31-34 and 38-43.

**D. Claims 14-17, 31-34 and 38-43 Are Not Obvious Under 35 USC 103 Over Schmidt '880 and Hefner 250 In View Of US Patent No. 5852083 To Walsh.**

Claims 14-17, 31-34 and 38-43 have been rejected under 35 USC 103 as being obvious over Schmidt '880 and Hefner '250 in view of US Patent No. 5852083 to Walsh (Walsh '083). Walsh '083 discloses a hot melt adhesive composition. As above, Walsh '833 is even relevant, being an adhesive and not a releasing medium.



In addition to the above distinction between hot melt adhesives and the thermopolymeric materials disclosed and claimed in the present application, the combination of Schmidt '880, Hefner '250 and Walsh '083 does not disclose, claim or teach in any way the use of device for the cooking of food, or a device in which a temperature indicator moves from a first position to a second position to indicate that the food has been cooked from an uncooked state to a cooked state, as now claimed in the present application.

As the present invention is not fairly taught by or related to the subject matter of the cited references, the cited references cannot and do not make obvious the present invention as claimed, and Applicant requests that this ground for rejection be withdrawn. For the reasons stated above, Applicant requests that the examiner withdraw the rejections of Claims 14-17, 31-34 and 38-43.

In summary, the examiner has rejected the claims of the present application over a melt-away warning label, a decoration using an expandable material, and four different hot melt adhesives. Applicant strenuously submits that all of the cited patents are unrelated to the present invention, do not teach what the present invention teaches, would not be referred to by those skilled in the temperature indicating field when developing the invention, and that the claims as they were originally filed are patentable over this cited art.

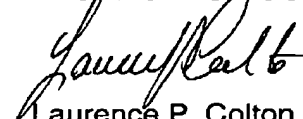
**CONCLUSION**

As the present invention is not fairly taught by or related to the subject matter of the cited references, the cited references cannot and do not anticipate or make obvious the present invention as claimed, and Applicant requests that these grounds for rejection be withdrawn.

Applicant submits that the patent application is in proper condition for allowance, and respectfully requests such action.

If the Commissioner or the Examiner has any questions that can be resolved over the telephone, please contact the below signed patent attorney of record.

Respectfully submitted,  
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